Digital Literacy Movement Through Empowering Elderly Groups in Interacting on Digital Platforms in Bengkulu City

Gushevinalti [1*], Mas Agus Firmansyah [2]

[1,2]Universitas Bengkulu
Bengkulu, Indonesia
✉ gushevinalti@unib.ac.id *

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Abstract

In the increasingly advanced information technology era, digital literacy has become an important skill to face the challenges and opportunities offered by digital platforms. However, elderly people often face difficulties in developing these skills. Therefore, this service was carried out to explain and analyze the digital literacy movement involving groups empowering elderly people to interact on digital platforms in Bengkulu City. The service method used is a participatory fun education method, including peer group training, namely providing material through small groups of 10 people with one facilitator and demonstrating directly with props, as well as a mentoring method facilitated by the service team in the form of a WhatsApp group by including all Elderly participants including facilitators for 1 month. The research results show that the digital literacy movement through empowering elderly groups in Bengkulu City has had a positive impact. Through proper training and support, seniors can improve their knowledge and skills using digital platforms. They are able to overcome obstacles such as technological incomprehension, fear and physical limitations that they may face. This service also reveals the importance of an inclusive and sustainable approach in empowering the elderly group in digital literacy. Support from government, community institutions, and families is critical in ensuring older adults have adequate access to necessary training and resources. Apart from that, it was also found that the existence of community and collaboration between elderly people can be an important factor in facilitating the exchange of knowledge and experience in using digital platforms.

A. Introduction

Based on the 2020 Central Statistics Agency (BPS) census, of the 270.20 million people, 11.56% are the Baby Boomer group (55-70 years). The 2022 Internet World Stats report found that the number of Indonesian internet users has reached more than 76.5% of the total population. The Katadata Insight Center (KIC) survey found that Gen Z (13-22 years) has a high level of digital literacy. Unfortunately, only 28% of Baby Boomers have a high digital literacy index (Susilawaty et al., 2023).

Survey Which done on quarter second year 2020 by Association Organizer Service Internet Indonesia (APJII) show that penetration Internet in Indonesia increase until 73.7% or 196.71 million person Indonesia can use it (Akbar et al., 2022; Arbaiah et al., 2022; Krisnaningsih et al., 2023; Raharjo & Winarko, 2021). The size amount user digital influence growth amount user service digital and change style life public. Temporary that, user internet there are not many elderly people compared to teenagers, but they are still a

vulnerable group when transacting on digital media. The number of elderly internet users aged 55-64 years is 9.0% and those aged 65+ are 6.8% of the total population of 277.7 million (We Are Social, 2022).
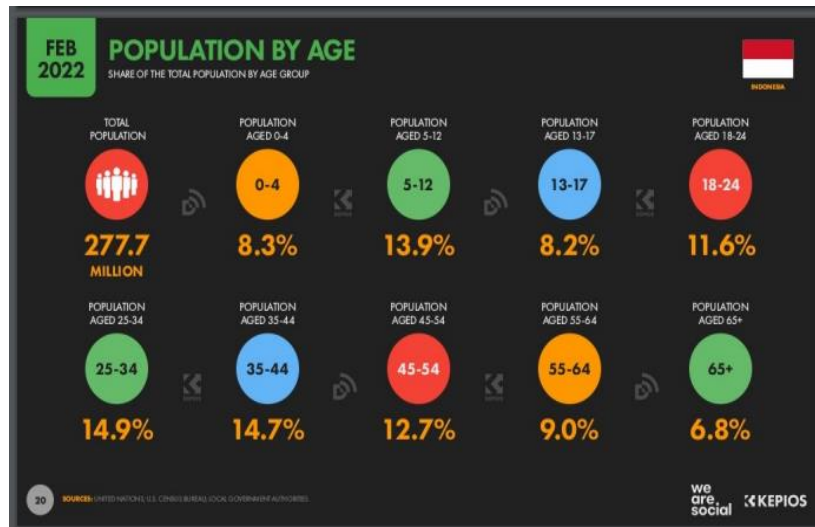
Figure 1. Population of Internet Users by Age

As digital immigrants, elderly people were born in a situation where digital media did not yet exist (Ashari, 2018; Sebastian et al., 2022; Wuriyanti & Febriana, 2022). Then, they had to move to a completely digital world (Nisa et al., 2023; Novianti & Fatonah, 2018). The habits and culture are clearly very different. Attention to the problems of elderly people in using digital media is very low. Programs to increase digital literacy capacity are mostly focused on young people, professionals or other productive groups. The elderly are often the last targets in the digital literacy movement, both at the local and national level (Tamika & Rinawati, 2023).

In a dilemma like this, elderly people often become targets for misuse of digital devices. Interpersonal, structural and functional barriers make senior citizens vulnerable to the negative excesses of the digital world. They fail to protect devices, personal data and privacy because they do not have the capacity and there is no assistance or outreach to them to increase their capacity. The threat of fraud, hoaxes and incitement to hatred are also before them. So, we need a more comprehensive and sustainable elderly empowerment program in the digital world.

In fact, the elderly in Indonesia are individuals who are respected and loved. The great respect in Indonesian culture makes the elderly central figures in the family and society. The support system in the family of children, grandchildren and caregivers can also strengthen each other's roles (Alvita, 2016; Aprilatutini et al., 2022). However, the role of the elderly in the digital world is often ignored. Even though the elderly can be empowered digitally. This empowerment of the elderly can include strengthening understanding of the social media landscape, security and privacy, digital marketplaces (e-commerce), and digital entertainment (Muhammad, 2023; Nuriana et al., 2019; Wardiani & Anisyahrini, 2022).

In Bengkulu, many elderly people are connected to organizations or communities that suit the needs of the elderly, for example religious communities, sports communities, social communities. However, based on the service team's observations, these elderly people have never received training and assistance in relation to digital literacy, even though the elderly are a group that is vulnerable to the spread of hoaxes, including those who are high victims of digital fraud and are wise in using conversation applications. If we examine the data on Indonesia's population as of September 2020, as many as 270.20 million people (BPS, 2020) or almost 90% of them have purchased goods or services online. These figures increasingly emphasize that online buying and selling transaction activities or what we know as e-commerce are really popular with the public, including the elderly. The elderly groups who will be participants in this training are KJS Talang Kering, Majlis Taklim/BKMT, Ranting Asyiyah, and KJS Beringin Raya, PKK Bengkulu City.

B. Research Method

The training was carried out in Bengkulu City for 1 month with the target group being the elderly. Considering that the training participants are elderly, the activity method is carried out using the participatory fun education method, with the following method:

a. Peer group training. Namely providing material in small groups (of 10 people) with one facilitator and demonstrating directly with visual aids. This activity also includes discussions and recommendations for resolving cases related to digital fraud, skills in using conversational applications and avoiding hoaxes. Elderly people will be invited to share personal or family experiences regarding the 3 themes that will be discussed. Props are prepared such as stickers, videos and quizzes for participants so that training conditions run actively. This method ensures that all participants can express their opinions so that they are active in the discussion. The triggers prepared are viral cases and even experiences experienced by the elderly on a daily basis. At the end of the training, the facilitator will ask the elderly to review the material by giving quizzes as well as distributing door prizes that have been prepared to increase the enthusiasm of the elderly.

b. Accompaniment. This method will be facilitated by the service team in the form of a WhatsApp group involving all elderly participants including facilitators for 1 month. The aim of this assistance is to provide the elderly with the opportunity to study the material in the form of daily activities. If there is anything that needs to be asked, the facilitator will be able to respond easily. Seniors can send videos, photos and even writings that will become discussion material.

This training activity supports the government's digital literacy movement, this activity will involve MAFINDO (Indonesian Anti-Defamation Society) Bengkulu Region as a facilitator, so that training tools and materials will be fully used during the training. The number of certified facilitators from Mafindo, 5 people, will all be involved in this activity. The names of the Mafindo Facilitators (certified) who will be the facilitators are: Fonika Toyib, Iyud Dwi Mursito, and Hartanto.

C. Result and Discussion

Activity Preparation

a. Formation of the Implementation Team

This digital literacy movement certainly requires a team consisting of individuals or organizations who have expertise in the fields of digital literacy, information technology, education, and most importantly, empowering the elderly. This team will be responsible for planning, organizing and implementing digital literacy activities, as well as providing support and guidance to the elderly.

In this activity, the implementing team consisted of a collaboration between the Indonesian Anti-Defamation Society (MAFINDO) Bengkulu Region community and several individuals as volunteers. The composition of the implementing team is as follows:

1. Bengkulu Regional Coordinator, someone who serves as a team leader in the Bengkulu region and is responsible for planning and organizing activities.
2. Person in Charge of Information and Coordination (PIC), someone who has special responsibility for managing and coordinating various operational aspects and community activities.
3. Facilitators, a group of people who are responsible for facilitating the learning and development process of participants who will later accompany and provide participants with material and practice.
4. Community volunteers, a group of people who voluntarily participate in activities with certain responsibilities, such as being responsible for documentation, consumption, and others.

b. Target Group Identification and Selection

After the implementation team is formed, the next step is to identify the target group, namely the elderly (elderly) in Bengkulu City. In this case, an initial survey was conducted to collect information regarding the number of elderly people in Bengkulu City, their digital literacy level, and the challenges they face in interacting on digital platforms. This target group selection sets several criteria, namely:

1. Elderly people who actively interact digitally on social media and chat applications
2. Elderly people who have experienced the spread of hoaxes
3. Elderly people often like shopping online

4. Seniors who are willing to take full training and assistance.

Based on these criteria, the target group for elderly people was determined as follows.

Table 1. Activity Target Group

Organization Name (Senior Origin)	Number of Elderly
KJS Dry Gutters	10 people
Taklim Council/BKMT	15 people
Aisyiyah Branch	10 people
KJS Beringin Raya	12 people
Bengkulu City PKK	8 people
Total participants	**55 people**

c. Development of Digital Literacy Materials and Modules

The next step in the preparation stage is to develop digital literacy materials that are relevant to the needs of the target group. This material must be designed to suit the level of understanding and skills of seniors in using digital platforms. The material prepared includes an introduction to types of personal data, how to protect personal data, forms of personal data theft, fact-checking tools followed by fact-checking practice using these tools. All themes of the material are divided into several delivery segments where each theme will have key takeaways, namely the important or core points of the theme being discussed. Apart from that, participants will be distributed brochures containing digital safety tips for the elderly. In the mentoring process later, some materials will also be equipped with games to make it easier for participants to understand the content of the material.

Not only material, there is also an implementation guide module or cue card prepared for facilitators to make the mentoring process easier. In this module, the stages of facilitation will be arranged in detail and structured, directions regarding what facilitators and participants should do in certain segments, materials used in that segment, methods, duration and supporting tools. After the modules and materials are arranged, the facilitators hold an up-grading to deepen the material together so that an understanding is formed.

d. Collaboration with Related Parties

This activity is a collaboration with Mafindo Bengkulu in supporting the National Digital Literacy Movement from the Indonesian Ministry of Communication and Information. This activity also involved several related parties, namely local online media. Collaboration between universities and the anti-hoax community provides training services in educating the public, especially the range group, namely the elderly or elderly. This training facilitator is a certified Mafindo Bengkulu volunteer. Several local online media are collaborating in this activity, namely:

1. www.bengkulutoday.com
2. www.uselnews.com
3. www.bengkuluone.co.id
4. www.klikwarta.com
5. www.intersisinews.com
6. www.inspirasinews.com
7. www.hwnews.id
8. www.katasandi.id
9. www.tintabangsa.com
10. www.progressivelines.id
11. www.swara-indonesia.com
12. www.swara-bengkulu.com
13. www.bengkulunews.co.id

e. Provision of Facilities and Infrastructure

In preparing for this activity, it is important to provide the necessary facilities and infrastructure. These facilities must be elderly-friendly and take into account their special needs, such as larger font sizes. The implementation team has conducted a survey of appropriate activity locations for the conditions of the elderly, the quota of elderly as participants, as well as adequate facilities.

As a result, the implementing team decided to carry out this activity in the Hall of Campus IV FMIPA Bengkulu University, bearing in mind that the hall's capacity reaches more than 100 people and facilities such as chairs, tables and a complete sound system. There are also additional facilities prepared by the implementation team, such as infocus, projector screens, laptops and banners.

f.   Promotion Implementation

During the promotional activities, the implementing team created an interesting and informative activity pamphlet about the digital literacy activities for the elderly that would be carried out. The pamphlet includes information about the theme, objectives, time, place and activities to be carried out. The pamphlet design is made attractive and simple so that it is easy to read by the target audience, namely the elderly. This activity is a collaboration and collaboration between the service implementation team and MAFINDO Bengkulu Region and also created an Instagram account dedicated to their activities. This account was created with informative, interesting and relevant content to the purpose of the activity.

Figure 1. Promotion via Instagram @mafindobengkulu

The implementation team also made official invitations which were distributed to the elderly groups who were participants in this activity. Participants are invited to join the WhatsApp group to facilitate the dissemination of information about activities. It is hoped that this group will continue as an information medium if in the future the implementing team organizes similar activities.

Implementation of Activities

a.   Digital Literacy Training

The implementation of this elderly digital literacy activity involves a series of training aimed at elderly people in Bengkulu City with the aim of providing an understanding of safe and smart digital use, and relevant digital platforms. This training also provides practical opportunities for seniors to interact directly with digital technology and improve their skills in fact checking. The participants were divided into 10 small groups, where each group was accompanied by a facilitator.

The entire training will be divided into several segments with different and relevant themes for 120 minutes. In the initial introduction, the facilitators will explain the background to why digital literacy for the elderly is important. Various data shows that internet use in Indonesia creates gaps when viewed from the age of the users. Based on a survey by Katadata Insight Center and Kominfo 2021, it shows that the elderly group aged 55-70 years is only 3.6% of internet users. Meanwhile, the percentage for other age groups is much higher, reaching 43.8%. There are several obstacles that are thought to be the reason why the number of elderly people as internet users is so low, namely the first is intra-personal obstacles which usually boil down to feelings of lack of self-confidence because they are carried away by the assumption that elderly people must be technologically illiterate. Second, functional obstacles are usually related to the physical condition of the body which has begun to experience many health challenges. Lastly, structural obstacles are usually related to the availability of internet networks which have unique characteristics both technically

and in the choice of internet quota packages available. Therefore, it is important to convey that the aim of this training is for the elderly to know the importance of safe access, how to carry out safe access, be able to carry out safe access and find solutions to obstacles to safe access.

Segment 1. What is personal data?

In this segment, the definition of personal data and its types will be explained, the importance of protecting personal data, and the risk of personal data leakage. This segment begins with games about types of personal data which are made with A4 sized paper and then cut and separated for each character card. The cards consist of full name, date of birth, birth mother's name, cellphone number, home address, NIK/KTP number, ATM pin, social media password, health data and home telephone number.
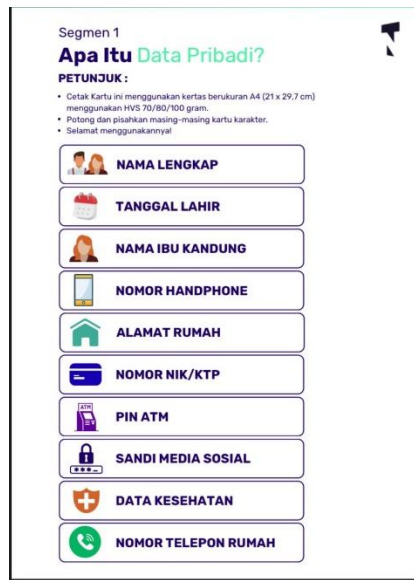

Figure 2. Games Segment 1 "What is Personal Data?"

These cards will be distributed to participants, and they will state to which type of personal data the card they receive belongs, general or specific personal data. An indicator of the achievement of this segment itself is that the elderly understand the various types of personal data, the importance of protecting personal data, understand the risks of personal data leakage and protect the personal data of themselves and other people entrusted to us.

Segment 2. Let's Protect Personal Data

In this segment, it is emphasized the importance of awareness of personal data protection, where practice can start from creating or using passwords that are strong, confidential, updated regularly and different for each account, and don't hesitate to ask family members for help if you have difficulty practicing personal data protection.
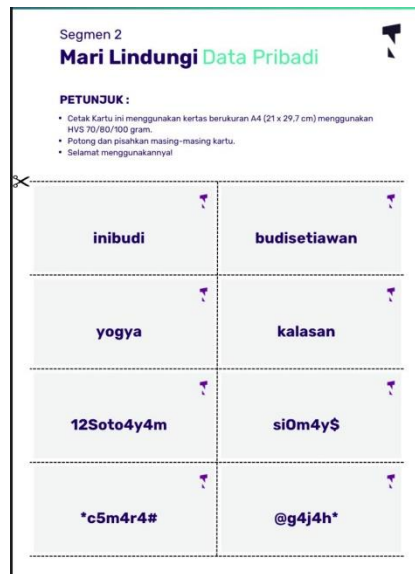
Figure 3. Game Segment 2 "Let's Protect Personal Data"

This segment is also punctuated by games in the form of cards made from A4 paper which are cut and distributed to participants. Each participant will receive a card containing a type of password that is safe to use on social media accounts. A good password is a password that consists of a combination of letters, numbers and symbols that are difficult for other people to guess.

The facilitators will ask participants about password models that other participants have obtained and ask other participants to respond to existing password models. In this way, the participants will share the cues they received, discuss and respond with other participants. The achievement of this segment is that participants are expected to have an awareness that personal data protection is very important and is realized in personal data protection practices. This practice can start from creating or using a strong, secret password, updating regularly and being different for each account.

Segment 3. Solutions for Safe and Smart Access

In this segment, we will explain what solutions and tips need to be taken to overcome obstacles to safe and smart access when using digital. These solutions and tips are presented in the form of simple games like in the previous segment, namely cards made from A4 paper and cut.


**Figure 4**. Games Segment 3 "Solutions for Safe and Smart Access Barriers"

These cards contain safe and smart solutions for the elderly on social media, such as strengthening passwords, updating passwords regularly, keeping passwords secret, using cell phone emergency contacts, and others. The facilitator will ensure that participants understand and implement these solutions and why. They also ask and respond to each cue they get.

Segment 4. Personal Data Theft Mode

In this segment, the modes of personal data theft are explained, such as fraud and incitement, as well as the importance of fact-checking knowledge starting from the definition, function and principles of fact-checking itself to the introduction of fact-checking tools to participants.
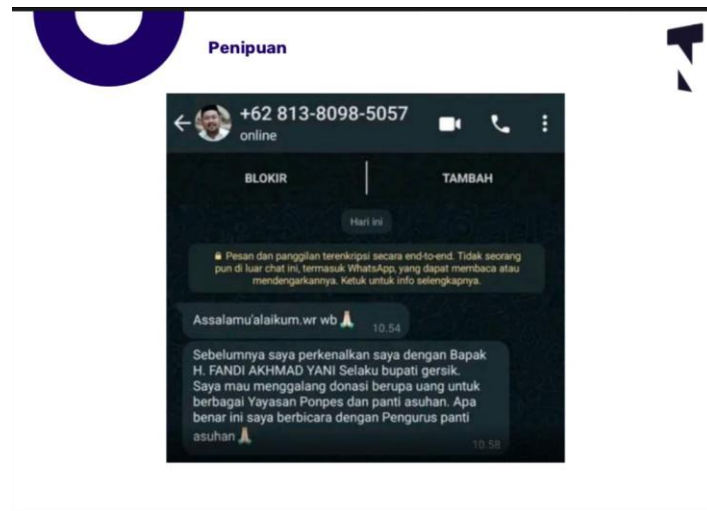
Figure 5. Forms of Fraud Mode
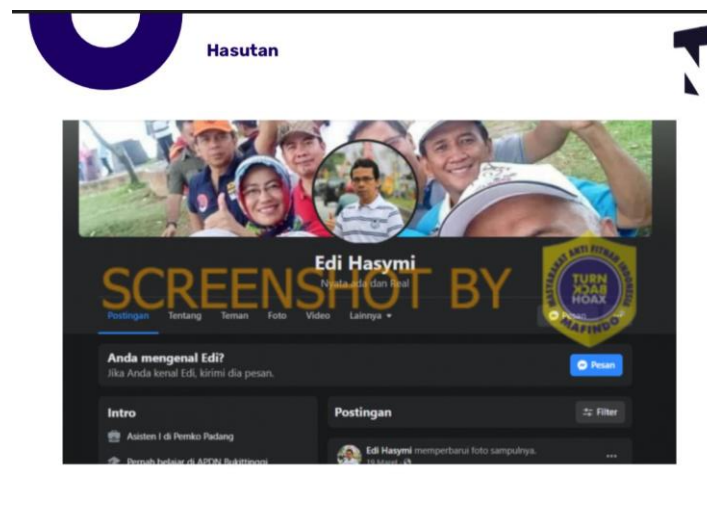
Figure 6. Forms of Incitement Mode

Figure 7. Form of Hoax Mode

Segment 5: Fact Check Practice

In this practical session, the participants were accompanied to use one of the fact checking tools from MAFINDO, namely Kalimasada.

Figure 8. Fact Check Practice

This is in the form of a WhatsApp chatbot so it is easy for the elderly to access, where they only need to save Kalimasada's contact number (085921600500). Then send any message, then Kalimasada will reply with several menus, such as checking hoaxes, checking the latest facts, tips and tricks for fighting hoaxes, about Kalimasada, and privacy. Participants can select the first menu by typing 1, then typing the title of the news whose truth they want to check. A few seconds later, Kalimasada will send a message containing facts or hoaxes regarding the news along with a detailed explanation.

b.   Implementation of Discussion and Question and Answer Sessions

This session provides an opportunity for seniors to share experiences, ask questions, and get answers to questions they have regarding the use of digital platforms with a duration of 15 minutes. Discussions in the form of small groups are an effective method for asking questions and facilitating the exchange of information between participants. In this session, the participants shared many experiences regarding fraud that had happened to them and asked what solutions there were to avoid this in the future. Elderly assistance is also carried out for 4 weeks using WhatsApp groups, making it easier for elderly people to ask questions and ask for explanations.

c. Evaluation and Monitoring

Evaluation begins by giving a pre-test to the elderly as participants before the training begins. This pre-test aims to measure the participants' initial digital literacy level before they take part in the training. Questions cover knowledge about the use of digital devices, the internet, social media, and safety using social media.

During the implementation of activities, regular evaluation and monitoring is carried out to measure the digital literacy progress achieved by the elderly. After the training is complete, participants are given a post-test via Google form with 20 questions regarding the material previously discussed. By comparing the results of the post-test with the pre-test, it can be seen how much change and improvement has occurred in the digital literacy level of the elderly. The results of this evaluation show that all participants who took part in the training have experienced an increase in digital literacy compared to before taking part in the training, this is proven by an increase in points from the initial test (pre-test) to the final test (post-test).

D. Conclusion

The implementation of this digital literacy training activity provides seniors with the knowledge and skills to interact on digital platforms. The presence of mentors and companions or facilitators provides individual guidance and support to the elderly as participants. Equipped with a question and answer session, it will facilitate the exchange of information between participants and strengthen their understanding. Providing guidance materials and learning resources also helps seniors obtain relevant and easily accessible information. Regular evaluation and monitoring ensures progress in the digital literacy of seniors and provides a basis for program adjustments. In the evaluation, data from the pre-test and post-test are processed and analyzed to determine the increase in digital literacy achieved. The difference between the scores on the two tests can be calculated for each participant individually, and then the average increase in the group can be calculated. This analysis provides an overview of the effectiveness of training in increasing digital literacy in the elderly group as a whole. As a result, participants are considered to have achieved increased digital literacy as evidenced by an increase in their scores from the initial test to their final test at the evaluation stage, and this means that this training is effective in increasing digital literacy in the elderly group.

E. Acknowledgments

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